



The moderating effects of psychological detachment and thoughts of revenge in workplace bullying

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ABSTRACT

Bullying at work has been receiving an increasing amount of research attention as an important social stressor in work contexts. Extant research has concentrated overwhelmingly on work related predictors of bullying. However, there is a lack of studies focusing on individual moderators of the experience of bullying. The aim of the present study was to examine the moderating role of psychological detachment and thoughts of revenge in the workplace bullying process. To minimize the effect of common method variance, we tested our hypothesis using a research design in which we collected data at two points in time separated by 1 month. A total of 523 individuals responded to both phases, with 511 useable surveys. Results revealed that psychological detachment moderates the relationship between (1) role conflict and workplace bullying and between (b) bullying and psychological strain. Similarly, thoughts of revenge moderate the relationship between role conflict and bullying. The findings are discussed in light of the cognitive activation theory of stress.

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1. Introduction

Bullying at work has been receiving an increasing amount of research attention in the literature over the past decade as an important social stressor in work contexts. Approximately 4–10% of the work population in Europe has reported being exposed to serious bullying at the workplace, whereas approximately 8–10% is exposed to less systematic bullying behaviors (Zapf, Einarsen, Hoel, & Vartia, 2003). Definitions of workplace bullying usually have emphasized exposure to repeat and enduring negative acts and behaviors. The most widely accepted definition of bullying is:

"Bullying at work means harassing, offending, socially excluding someone or negatively affecting someone's work tasks. In order for the label bullying to be applied to a particular activity, interaction or process it has to occur repeatedly and regularly (e.g. weekly) and over a period of time (e.g. about six months). Bullying is an escalating process in the course of which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts" (Einarsen, Hoel, Zapf, & Cooper, 2003, p. 15).

Theoretical models of workplace bullying have focused for the most part on those work and organizational stressors that play a central role in the etiology and maintenance of this phenomenon.

Accordingly, most research on this topic has focused on organizational and situational factors as predictors of bullying. This approach has been named the work environment hypothesis (Hoel & Salin, 2003). This hypothesis, postulates that a poor psychosocial work environment will create conditions that may lead up to bullying at work. However, a recent meta-analysis has showed that both environmental and individual difference factors potentially contributed to bullying (Bowling & Beehr, 2006). Indeed, the fact that not all individuals who experience significant levels of bullying at work develop a health problem has led, in part, to the recognition that personality and individual factors are important components of this process. Thus, researchers are increasingly recognizing that individual differences cannot be ignored when it comes to explaining and predicting workplace bullying.

In contrast to existing research, which has concentrated overwhelmingly on work related predictors of bullying, to date, there is a lack of studies focusing on individual moderators of the experience of bullying. This is not surprising, because as Bowling and Beehr (2006) has pointed out, researchers might be reluctant to follow such an approach for fear that results could reinforce a tendency to blame the victim. Thus, Leymann (1996) strongly opposed the idea that personality traits influence the probability of becoming a target of workplace bullying. However, several studies have found that victims' personality and individual factors are associated with bullying. For instance, Coyne, Seigne, and Randall (2000), found that victims of bullying tended to be less extraverted

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and independent and more unstable and conscientious compared to a non-victims sample. On the other hand, results of the study conducted by Matthiesen and Einarsen (2007) revealed that targets of bullying showed low levels of self-esteem and social competence. Thus, it has been shown that there are consistent differences in the personality of victims and non-victims of workplace bullying (Zapf & Einarsen, 2003). Based on the above mentioned research, the idea behind the present study is that personality characteristics may moderate the process of workplace bullying. We seek to broaden the range of possible moderator variables by studying the role of psychological detachment and thoughts of revenge, in order to reach a better understanding of bullying process.

Psychological detachment from work has been defined by Etzion, Eden, and Lapidot (1998) as “the individual’s sense of being away from the work situation” (p. 579), which has been shown to be one of core components of recovery from job strain (Sonnentag & Fritz, 2007), that replenish resources and improve individual health and wellbeing. For example, Etzion et al. (1998) study showed that detachment moderated the relationship between stressors and burnout. More recently, using daily survey data, Sonnentag and Bayer (2005) found that individuals experiencing psychological detachment from work during leisure time reported better mood and less fatigue.

Rumination about job-related issues may be seen as the opposite construct of psychological detachment from work. This concept may be broadly defined as a maladaptive cognitive process involving repetitive thoughts and feelings about past events that are intrusive and aversive (Nolen-Hoeksema, 1991). Recent research suggests that there are different types of rumination (Treynor, Gonzalez, & Nolen-Hoeksema, 2003). One of these variants that seem to be close related to aggression is anger rumination (Bushman, 2002). Sukhodolsky, Golub, and Cromwell (2001) have conceptualized this construct as “unintentional and recurrent cognitive processes that emerge during and continue after an episode of anger experience” (p. 690). So far, numerous studies have pointed to anger rumination as being negatively associated with health and wellbeing. For example, it has been found that anger rumination leads to increases in sympathetic nervous system activation (Ray, Wilhem, & Gross, 2008), and creates a vulnerability for cardiovascular disease (Brosschot, Gerin, & Thayer, 2006). One of the most important components of anger rumination is thoughts of revenge. The available evidence from studies suggests that feelings of revenge also are linked to depression and reduced life satisfaction (Ysseldyk, Matheson, & Anisman, 2007). Thus, it seems fairly reasonable to expect that individuals that tend to ruminate about anger events, such as workplace bullying, are likely to experience health problems.

For the purposes of this study, we founded our hypotheses on the Cognitive Activation Theory of Stress (CATS; Ursin & Eriksen, 2004), that provide a useful framework for understanding the effects of psychological detachment and thoughts of revenge. The

core assumption of the CATS model is that repeated or chronic cognitive activation, such as worry or rumination, produced by stress may prolong physiological activation and lead to impairment in health. In this line of argument, Brosschot et al. (2006) have argued that perseverative cognition prolongs a stressor’s effects by maintaining its cognitive representation. Recently, it has been found that rumination impedes the recovery process by prolonging physiological activation (McCullough, Orsulak, Brandon, & Akers, 2007).

Building upon this theoretical framework, we developed the following research hypotheses:

Hypothesis 1. Psychological detachment and thoughts of revenge will moderate the relationship between work stressors (workload and role conflict) and workplace bullying, such that work stressors will be (a) less strongly associated with bullying among individuals who experience high detachment from work and (b) more strongly associated with bullying among individuals who experience high levels of thoughts of revenge.

Hypothesis 2. Psychological detachment and thoughts of revenge will moderate the relationship between workplace bullying and psychological strain, such bullying will be (a) less strongly associated with psychological strain among individuals who experience high detachment from work and (b) more strongly associated with psychological strain among individuals who experience high levels of thoughts of revenge.

2. Method

2.1. Participants and procedure

The majority of studies on workplace bullying have employed cross-sectional research, designs that tend to inflate the relation between stressors-strain, due to common method variance (CMV). Podsakoff, MacKenzie, Lee, and Podsakoff (2003), recommended a temporal separation by introducing a time lag between the measurement of the predictor and criterion variables, in order to minimize the potential biasing effects of CMV. Thus, we tested the hypotheses using a research design in which we collected data at two points in time separated by 1 month (see Table 1). Participants were employees of three telecommunications companies, located in the city of Madrid (Spain). 1000 questionnaires were distributed, accompanied by a cover letter explaining the aim of the study. Participation was voluntary, and responses were anonymous. At Time 1, we received 607 questionnaires (response rate = 60.7%), whereas 539 (response rate = 53.9%) were returned at Time 2. A total of 523 employees participated in both phases of the study, with 511 usable surveys.

Fifty-five percent of the respondents were female (283), the mean age was 31.15 years (SD = 5.40), and their average of work experience was 6.10 years (SD = 4.50). Moreover, chi-square and *t*-tests revealed no significant differences between those participating in both phases and those who completed only the Time 1

Table 1
Descriptive statistics and zero-order correlations among the study variables (*N* = 511).

Variable	M	SD	1	2	3	4	5	6	7
Role conflict (T1)	2.2	0.7	(0.70)						
Workload (T1)	2.43	0.93	0.45**	(0.79)					
Negative affectivity (T1)	2.44	0.55	0.18**	0.04	(0.79)				
Psychological detachment (T1)	3.97	0.94	−0.08	−0.04	−0.25**	(0.85)			
Thoughts of revenge (T1)	2.5	0.86	0.26**	0.15*	0.26**	−0.24**	(0.75)		
Workplace bullying (T2)	2.17	0.88	0.46**	0.49**	0.34**	−0.16**	0.32**	(0.87)	
Psychological strain (T2)	1.6	0.53	0.42**	0.39**	0.34**	−0.12**	0.28**	0.53**	(0.78)

Note: Coefficient alphas appear along the diagonal in parentheses.

T1 = Time 1; T2 = Time 2.

* *p* < 0.05.

** *p* < 0.01.

questionnaire, in terms of gender ($p = 0.512$), age ($p = 0.470$) and years of work experience ($p = 0.308$). The data collection took place between June and October of 2007.

2.2. Measures

Workplace bullying was measured using a shortened version of seven items of the *Negative Acts Questionnaire* (NAQ; Einarsen & Raknes, 1997). Respondents were asked how often they experienced negative acts at work over the past six months (e.g., *Spreading of gossip and rumours about you; Being humiliated or ridiculed in connection with your work*), in a 5-point scale (never, now and then, monthly, every week, and daily). All items are formulated in behavioral terms, with no reference to the term bullying. The scale has shown high reliability and constructs validity (Einarsen & Raknes, 1997). Cronbach's alpha was 0.87.

Role conflict measures the degree of role stress an individual experiences in a domain. Role conflict was measured using the scale of Rizzo, House, and Lirtzman (1970). The scale has five items (e.g., *"I receive incompatible requests from two or more people"*), and five response categories (from very false to very true). This scale has been widely used to measure role conflict and has shown suitable psychometric properties (Rizzo et al., 1970). Cronbach's alpha was 0.70.

Workload was measured with a scale based on items from Schaubroeck, Cotton, and Jennings (1989) and Beehr, Walsh, and Taber (1976). The scale consists of four items (e.g., *"The amount of work I am expected to do is too great"*), and responses were made on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale has provided a reliable and internally consistent measure of workload (Schaubroeck et al., 1989). Cronbach's alpha for the scale was 0.79.

Psychological detachment from work was measured using four items from the *Recovery Experience Questionnaire* (Sonnentag & Fritz, 2007). The items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating more psychological detachment (e.g., *"I forget about work"*). Evidence of adequate psychometric properties and validity has been demonstrated previously (Sonnetttag & Fritz, 2007). Cronbach's alpha was 0.85.

Thoughts of revenge were assessed using the subscale of the Anger Rumination Scale (Sukhodolsky et al., 2001), an instrument that measures individuals' tendency to think about current anger provoking situations and recall angry episodes from the past. This subscale consists of four items (e.g., *"When someone makes me angry I can't stop thinking about how to get back at this person"*), and responses were made on a 5-point scale ranging from 1 (never) to 5 (always). This scale has demonstrated to have high internal consistency, test–retest reliability, and convergent and discriminant validity (Sukhodolsky et al., 2001). Cronbach's alpha was 0.75.

Psychological strain was assessed using the 12-item version of the general health questionnaire (GHQ-12) (Goldberg, 1972). The GHQ-12 asks participants about how they felt. Sample items are "Have you recently been feeling unhappy and depressed?", and "Have you recently lost much sleep over worry?" Responses are given on a 4-point scale ranging from 1 (better than usual) to 4 (much less than usual). Overall the scale has been demonstrated to have adequate reliability, sensitivity and validity (Goldberg et al., 1997). Cronbach's alpha was 0.78.

Controls. In order to ensure that the hypothesis tests were appropriately conservative, several variables known to covary with workplace bullying (Zapf et al., 2003) were controlled. Therefore, we controlled gender, age and work experience of participants. In addition, we controlled for individual differences in the propensity to experience a range of negative emotions in everyday life by measuring the variable negative affectivity (Watson, Clark, &

Tellegen, 1988), because this might bias relationships between self-reported stressors and strains. We measured this construct using the negative subscale of the Positive and Negative affectivity Schedule (PANAS) (Watson et al., 1988). The respondents used a 5-point response scale ranging from 1 (not at all) to 5 (extremely), to report the extent to which they experienced ten negative emotional states (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid). Cronbach's alpha was 0.79.

3. Results

3.1. Preliminary and correlational analyses

Means, standard deviations, zero-order correlations and reliabilities of all the variables are presented in Table 1.

From a theoretical viewpoint, it has been pointed out that psychological detachment and rumination may show conceptual overlap (Sonnetttag & Bayer, 2005). We assessed the unidimensionality of these constructs by performing a principal components analysis with varimax rotation. Inspection of the scree plot and eigenvalues resulting from this analysis showed a clearly interpretable two factor solution. All items loaded on their respective factors with factor loadings >0.75 and with cross-loadings not exceeding 0.14. Thus, we can assume that psychological detachment from work and thoughts of revenge are distinct concepts.

3.2. Moderation analyses

We conducted hierarchical moderated multiple regression analyses to test the hypotheses. The statistical significance of the interaction or moderation effect was assessed after controlling for all main effects. Control variables were entered first in the models (demographic variables and negative affectivity), followed by the main effects of work stressors (role conflict and workload), psychological detachment and thoughts of revenge (Step 2). In the third step the interactions between work stressors and personality variables were entered. Following the recommendation of Cohen, Cohen, West, and Aiken (2003), we mean centered the predictor variables to reduce multicollinearity. We examined each of the regression models to ensure it met several assumptions. According to Kleinbaum, Kupper, and Mueller (1988), VIF-values greater than 10 and tolerance-values smaller than 0.10 may indicate the presence of multicollinearity. Also, we used the Durbin–Watson statistic as a diagnostic check for bias resulting from correlated errors terms. We found these values to be in the recommended range (1.5–2.5) for all reported equations (Durbin & Watson, 1971). These tests indicate that multicollinearity did not present a biasing problem in the present data. The results of the regression analyses for workplace bullying as dependent variable are presented in Table 2.

In step 1, the control variables added significantly to the prediction of the bullying, $F(4, 501) = 14.12$, $p < 0.001$, with a significant effect of negative affectivity. At step 2, the main effect of independent variables accounted for an additional 30% of the variance in bullying. Of these variables, workload ($\beta = 0.39$, $p < 0.001$), and role conflict ($\beta = 0.18$, $p < 0.001$), were the most related with bullying. In addition, thoughts of revenge showed a main effect ($\beta = 0.11$, $p < 0.01$). Entry of the two-way interaction terms at step 3 revealed a significant two-way interaction between role conflict and psychological detachment ($\beta = -0.09$, $p < 0.05$), and role conflict and thoughts of revenge ($\beta = 0.13$, $p < 0.01$). Inclusion of the two-way interaction terms accounted for a significant proportion of additional variance in the workplace bullying, $R^2 = 0.03$, $F(9, 495) = 29.62$, $p < 0.001$. Graphical representation of the interactions was derived using the standardized regression coefficients

Table 2
Regression results predicting workplace bullying.

Steps and variables ^a	Workplace bullying		
	β Step 1	β Step 2	β Step 3
<i>Step 1: Controls</i>			
Gender	0.04	0.02	0.02
Age	0.01	0.04	0.03
Work experience	0.03	0.01	0.01
Negative affectivity	0.31***	0.22***	0.23***
<i>Step 2: Main effects</i>			
Role conflict		0.20***	0.18***
Workload		0.38***	0.39***
Psychological detachment		−0.02	−0.04
Thoughts of revenge		0.14***	0.11**
<i>Step 3: Interaction effects</i>			
Role conflict X psychological detachment			−0.09*
Role conflict X thoughts of revenge			0.13**
Workload X psychological detachment			−0.03
Workload X thoughts of revenge			0.01
R^2	0.1	0.4	0.43
ΔR^2	0.10***	0.30***	0.03**

^a Note: β are the standardized regression coefficients. Gender was coded as 1 = male, 2 = female.

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

of the regression lines for employees high (1 SD above the mean) and low (1 SD below the mean) on the moderator variable (Cohen et al., 2003). Inspection of Fig. 1a revealed that the effects of role conflict on levels of bullying were more marked for employees with low levels of psychological detachment. Conversely, Fig. 1b, indicates that the effects of role conflict on levels of bullying were more marked for employees with high levels of thoughts of revenge.

We also tested the moderating effect of personality variables with psychological strain as the dependent variable. Control variables were entered first in the models (demographic variables and negative affectivity), followed by the main effects of workplace bullying, psychological detachment and thoughts of revenge (step 2). In the third step the interactions between workplace bullying and personality variables were entered. We followed the procedures and statistics explained above. Again, tests for normality demonstrated no violations of assumptions underlying the regressions. The results of these regression analyses are presented in Table 3.

In step 1, the control variables added 12% to the psychological strain variance $F(4, 497) = 16.59, p < 0.001$, with a significant effect of negative affectivity. At step 2, the main effect of independent variables accounted for an additional 25% of the variance in psychological strain. Of these variables, bullying ($\beta = 0.50, p < 0.001$), was the most related with psychological strain. Entry of the two-way interaction terms at step 3 revealed a significant two-way interaction between workplace bullying and psychological detachment ($\beta = -0.10, p < 0.05$). Also, there was a marginally significant effect of thoughts of revenge on the bullying-psychological strain relationship ($\beta = 0.07, p < 0.10$). Inspection of Fig. 1c revealed that the effects of bullying on psychological strain were more marked for employees with low levels of psychological detachment.

4. Discussion

Most prior research on workplace bullying has focused on organizational and situational factors as predictors of bullying (Hoel & Salin, 2003). The present study aimed to extend previous research by exploring the moderating role of psychological detachment and thoughts of revenge. In general, results were consistent with our hypotheses.

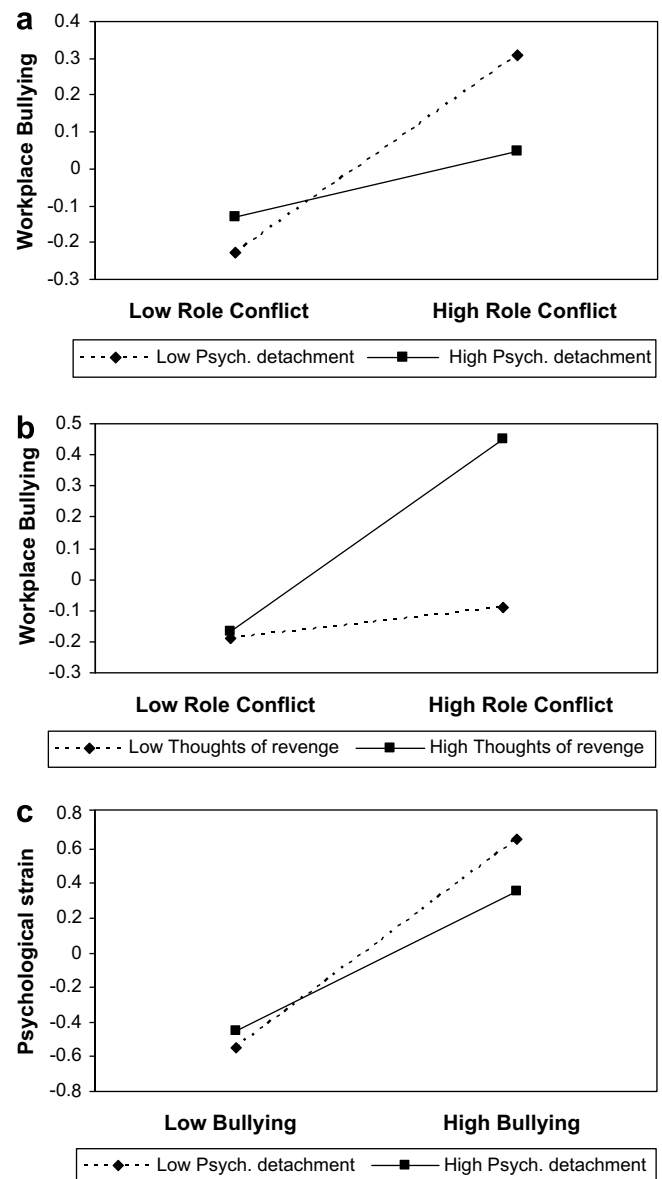


Fig. 1. Interaction effects of role conflict and psychological detachment (a) and thoughts of revenge (b) in predicting workplace bullying; and interaction effects of workplace bullying and psychological detachment (c) in predicting psychological strain.

Psychological detachment from work moderates the relationship between role conflict and workplace bullying. According to these results, being psychologically detached from work is a successful strategy in coping with work stressors. This finding is congruent with CATS theory (Ursin & Eriksen, 2004), which suggests that the individual interpretation of potential stressors is the main framework from which one can understand the effect of the stressors. Thus, the same stressor may cause very different responses among different individuals. In response to a stressor, an individual using psychological detachment might try to control their effects by distracting attention away from the stressor. Furthermore, in physiological terms switching off mentally from work related issues may help to reduce arousal level and return to a prestressor level, or in other words allow one to “charge the batteries” (Sonnentag & Bayer, 2005; Sonnentag & Fritz, 2007). In addition, psychological detachment also moderates the relationship between bullying and psychological strain. Our findings are in line with those by Etzion et al. (1998), who in a study with military

Table 3

Regression results predicting psychological strain.

Steps and variables ^a	Psychological strain		
	β Step 1	β Step 2	β Step 3
<i>Step 1: Controls</i>			
Gender	0.06	0.04	0.03
Age	0.05	0.06	0.05
Work experience	0.03	0.01	0.01
Negative affectivity	0.33***	0.15***	0.14***
<i>Step 2: Main effects</i>			
Workplace bullying		0.50***	0.50***
Psychological detachment		−0.03	−0.04
Thoughts of revenge		0.09 [†]	0.09 [†]
<i>Step 3: Interaction effects</i>			
Workplace bullying X psychological detachment			−0.10 [†]
Workplace bullying X thoughts of revenge			0.07 [†]
R ²	0.12	0.37	0.39
ΔR ²	0.12***	0.25***	0.02 [†]

[†] $p < 0.10$; * $p < 0.05$; *** $p < 0.001$.^a Note: β are the standardized regression coefficients. Gender was coded as 1 = male, 2 = female.

personnel found that psychological detachment moderated the relationship between job stressors and burnout. Similarly, [Morrow and Nolen-Hoeksema \(1990\)](#), in an experimental research showed that distraction, which closely resembles psychological detachment, reduces depressed mood in normally non-depressed persons.

With regard to anger rumination, we found that thoughts of revenge strengthened the relationship between role conflict and bullying. A similar pattern emerged for the relationship between bullying and psychological strain, but it was marginally significant. The results of our study add to previous research showing that forms of rumination might have a negative effect. Recently, [McCullough et al. \(2007\)](#) in a vivo study showed that when people ruminated about an interpersonal transgression they experienced increases in salivary cortisol (a bio-marker of stress). Our results are also consistent with the three way model of workplace bullying of [Baillien, Neyens, De Witte, and De Cuyper \(in press\)](#). In this model, stressors and how employees deal with them are one of the paths that may lead to bullying. According to this model, facing these frustrations in an ineffective way (e.g., by ruminating) increased the likelihood of becoming a victim. The current results highlight the importance of both contextual and individual factors as determinants of bullying, and fit well into the CATS model ([Ursin and Eriksen, 2004](#)). The CATS emphasizes the importance of individual interpretation of the stressor and of sustained arousal as an explanation of health complaints. In this sense, [Brosschot et al. \(2006\)](#) have suggested that representational cognitions that may occur after the stressor is more important than the stressor itself.

This study has a number of strengths and limitations that deserve mention. First, one of the strengths is that the study is based on a large sample with a high response rate. Another strength lies in the method design. The majority of studies focusing on workplace bullying have employed cross-sectional designs that might be biased by common method variance. Following [Podsakoff et al. \(2003\)](#) recommendations, we utilized a temporal separation of one month between the measurement of the predictor and criterion variables to minimize the potential biasing effects of CMV. However, although this design may help to reduce the effect of CMV, it does not permit interpretation of causal relationships among the variables. To address this concern future research should adopt a longitudinal design to clarify the direction of these findings. Another limitation regarding CMV is that our data are based on self-reports, provided by a single source. In this respect,

although it has been argued that CMV might enhance main effects, interactions were hardly attributable to method bias ([Cohen et al., 2003](#)). Furthermore, it seems necessary to undertake new studies based on more heterogeneous samples, in order to test our hypothesis. Regarding the practical implications, organizations that attempt to reduce workplace bullying might also focus on individual differences rather than exclusively on situational and organizational factors. For example, interventions may center on skills that can help employees to deal with the negative thoughts that may arise in interpersonal conflicts. These two strategies are not mutually exclusive and, in fact, should be attempted simultaneously.

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